



U.S. Application No. 10/072,893

Docket No. 0905-0271P

Art Unit: 2173

Page 2 of 42

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (CURRENTLY AMENDED) An image sensing system, comprising:
a digital still camera and an image data receiving apparatus,
wherein said digital still camera includes:

an image sensing device configured to sense an image of a subject
and outputting main-image data representing the image of the subject;

a recording controller configured to record the main-image data
output from said image sensing device on a recording medium in
association with an identification code that identifies the image of the
subject;

a thumbnail-image data generating device configured to generate
thumbnail-image data that represents a thumbnail image the amount of
data whereof is less than that of the image of the subject represented by
the main-image data output from said image sensing device;~~and~~

a thumbnail-image data transmitting device configured to transmit
wirelessly the thumbnail-image data generated by said thumbnail-image
data generating device to said image data receiving apparatus in
association with the identification code that corresponds to the
corresponding image of the subject; and

a controller configured to control said image sensing device, said recording controller, said thumbnail-image data generating device, and said thumbnail-image data transmitting device so as to carryout sensing the image of the subject, recording the main-image data on the recording medium, generating the thumbnail-image data, and transmitting the thumbnail-image data to said image data receiving apparatus in response to set a communication imaging (sensing) mode, establish a communication between said digital still camera and said image data receiving device, and depression of a shutter release button of said digital still camera, and

wherein said image data receiving apparatus includes:

an image data receiving device configured to receive wirelessly the thumbnail-image data transmitted from said thumbnail-image data transmitting device of said digital still camera and with which the identification code has been associated; and

a display controller configured to control a display device in such a manner that the thumbnail image represented by the thumbnail-image data received by said image data receiving device will be displayed in association with the corresponding identification code.

2. (CURRENTLY AMENDED) The image sensing system according to claim 1, wherein said image data receiving apparatus further includes:

an identification code input device; and

an output device configured to read the main-image data, which corresponds to the identification code entered from said identification code input device, from the recording medium and configured to output the main-image data.

3. (CURRENTLY AMENDED) The image sensing system according to claim 2, wherein said image data receiving apparatus further includes:

a user code input device configured to enter a code that specifies a user;

a user code discriminating device configured to determine whether the user code entered from said user code input device is legitimate; and

a printer controller configured to control a printer in such a manner that the image of the subject represented by the main-image data output from said output device will be printed in response to a determination by said user code discriminating device that the entered user code is legitimate.

4. (CURRENTLY AMENDED) A digital still camera that is capable of communicating, comprising:

an image sensing device configured to sense an image of a subject and configured to output main-image data representing the image of the subject;

a first recording controller configured to record the main-image data output from said image sensing device on a recording medium in association with an identification code that identifies the image of the subject obtained by said image sensing device;

a thumbnail-image data generating device configured to generate thumbnail-image data that represents a thumbnail image the amount of data whereof is less than that of the image of the subject represented by the main-image data output from said image sensing device;~~and~~

a thumbnail-image data transmitting device configured to transmit wirelessly the thumbnail-image data generated by said thumbnail-image data generating device to an image data receiving apparatus in association with the identification code that corresponds to the corresponding image of the subject;
and

a controller configured to control said image sensing device, said recording controller, said thumbnail-image data generating device, and said thumbnail-image data transmitting device so as to carryout sensing the image of the subject, recording the main-image data on the recording medium,

generating the thumbnail-image data, and transmitting the thumbnail-image data to said image data receiving apparatus in response to set a communication imaging (sensing) mode, establish a communication between said digital still camera and said image data receiving device, and depression of a shutter release button of said digital still camera.

5. (CURRENTLY AMENDED) The digital still camera according to claim 4, further comprising an image-sensing controller configured to allow a succeeding sensing of the image of a subject by said image sensing device in response to a completion of the recordation of the main-image data on the recording medium by said first recording controller and a completion of the transmission of the thumbnail-image data by said thumbnail-image data transmitting device.

6. (CURRENTLY AMENDED) The digital still camera according to claim 4, wherein a data line that applies the main-image data from said image sensing device to said first recording controller and a data line that applies the thumbnail-image data from said thumbnail-image data generating device to said thumbnail-image data transmitting device have portions in common and wherein said first recording controller records the main-image data on the

recording medium in response to a pressing of a shutter-release button, said camera further comprising:

a buffer memory configured to temporarily store the main-image data that is output from said image sensing device;

a first discriminating device configured to determine whether the shutter-release button has been pressed during transmission of the thumbnail-image data by said thumbnail-image data transmitting device;

a memory controller configured to control said buffer memory in such a manner that the main-image data that is output from said image sensing device is stored in said buffer memory temporarily in response to the determination by said first discriminating device that the shutter-release button has been pressed; and

a second recording controller configured to record the main-image data, which has been stored temporarily in said buffer memory, on the recording medium in response to a determination that transmission of thumbnail-image data by said thumbnail-image data transmitting device has been completed.

7. (CURRENTLY AMENDED) An image data receiving apparatus, comprising:

an image data receiving device configured to receive wirelessly thumbnail-image data transmitted from a digital still camera and with which ~~the~~ an identification code has been associated; and

a display controller for controlling a display device in such a manner that the thumbnail image represented by the thumbnail-image data received by said image data receiving device will be displayed in association with the corresponding identification code.

8. (CURRENTLY AMENDED) An image data communication system, comprising:

a digital still camera;

an image data receiving apparatus; and

an image data transmitting apparatus,

~~an image data transmitting apparatus and an image data receiving apparatus that are capable of communicating with each other,~~

wherein said digital still camera includes:

an image sensing device configured to sense an image of a subject
and outputting main-image data representing the image of the subject;

a recording controller configured to record the main-image data output from said image sensing device on a recording medium in association with an identification code that identifies the image of the subject;

a thumbnail-image data generating device configured to generate thumbnail-image data that represents a thumbnail image the amount of data whereof is less than that of the image of the subject represented by the main-image data output from said image sensing device;

a thumbnail-image data transmitting device configured to transmit wirelessly the thumbnail-image data generated by said thumbnail-image data generating device to said image data receiving apparatus in association with the identification code that corresponds to the corresponding image of the subject; and

a controller configured to control said image sensing device, said recording controller, said thumbnail-image data generating device, and said thumbnail-image data transmitting device so as to carryout sensing the image of the subject, recording the main-image data on the recording medium, generating the thumbnail-image data, and transmitting the thumbnail-image data to said image data receiving apparatus in response to set a communication imaging (sensing) mode, establish a communication between said digital still camera and said image data

receiving device, and depression of a shutter release button of said digital still camera,

wherein said image data receiving apparatus includes:

an image data receiving device configured to receive wirelessly thumbnail-image data transmitted from a digital still camera and with which has been associated an identification code that identifies the image of a subject;

a display controller configured to control a display device in such a manner that the thumbnail image represented by the thumbnail-image data received by said image data receiving device will be displayed in association with the corresponding identification code;

an identification code input device configured to enter the identification code; and

an identification-code data transmitting device configured to transmit wirelessly data, which represents the identification code entered by said identification code input device, to said image data transmitting apparatus; and

wherein said image data transmitting apparatus includes:

an identification-code data receiving device configured to receive wirelessly the data representing the identification code transmitted from

said identification-code data transmitting device of said image data receiving apparatus;

a reading device configured to read main-image data, which corresponds to the identification code represented by the identification-code data received by said identification-code data receiving device, from a recording medium on which has been recorded the main-image data with which the identification code is associated; and

a main-image data transmitting device configured to transmit wirelessly the main-image data read by said reading device to said image data receiving apparatus.

9. (CURRENTLY AMENDED) An image data receiving apparatus, comprising:

an image data receiving device configured to receive wirelessly thumbnail-image data transmitted from a digital still camera and with which has been associated an identification code that identifies the image of a subject;

a display controller configured to control a display device in such a manner that a thumbnail image represented by the thumbnail-image data received by said image data receiving device will be displayed in association with the corresponding identification code;

an identification code input device configured to enter the identification code; and

an identification-code data transmitting device configured to transmit wirelessly data, which represents the identification code entered by said identification code input device, to an image data transmitting apparatus.

10. (CURRENTLY AMENDED) An image data transmitting apparatus, comprising:

an identification-code data receiving device configured to receive wirelessly data representing an identification code transmitted from an image data receiving apparatus;

a reading device configured to read main-image data, which corresponds to the identification code represented by the identification-code data received by said identification-code data receiving device, from a recording medium on which has been recorded the main-image data with which the identification code is associated; and

a main-image data transmitting device configured to transmit wirelessly the main-image data read by said reading device to said image data receiving apparatus.

11. (CURRENTLY AMENDED) A method of controlling operation of a digital still camera, comprising the steps of:

sensing ~~the~~ an image of a subject and outputting main-image data representing ~~an~~ the image of the subject;

recording the main-image data on a recording medium in association with an identification code that identifies the obtained image of the subject;

generating thumbnail-image data that represents a thumbnail image the amount of data whereof is less than that of the image of the subject represented by the main-image data; ~~and~~

transmitting wirelessly the thumbnail-image data to an image data receiving apparatus in association with the identification code that corresponds to the corresponding image of the subject; and

controlling the image sensing process, the recording process, the thumbnail-image data generating process, and the thumbnail-image data transmitting process so as to carryout sensing the image of the subject, recording the main-image data on the recording medium, generating the thumbnail-image data, and transmitting the thumbnail-image data to an image data receiving apparatus in response to set a communication imaging (sensing) mode, establish a communication between a digital still camera and the image data receiving device, and depression of a shutter release button of the digital still camera.

12. (PREVIOUSLY PRESENTED) A method of controlling operation of an image data receiving apparatus, comprising the steps of:

receiving wirelessly thumbnail-image data transmitted from a digital still camera and with which has been associated an identification code of a corresponding image of a subject; and

controlling a display device in such a manner that the thumbnail image represented by the thumbnail-image data received will be displayed in association with the corresponding identification code.

13. (PREVIOUSLY PRESENTED) A method of controlling operation of an image data receiving apparatus, comprising the steps of:

receiving wirelessly thumbnail-image data transmitted from a digital still camera and with which has been associated an identification code that identifies an image of a subject;

controlling a display device in such a manner that the thumbnail image represented by the thumbnail-image data received will be displayed in association with the corresponding identification code; and

transmitting wirelessly data, which represents the entered identification code, to an image data transmitting apparatus.

14. (PREVIOUSLY PRESENTED) A method of controlling operation of an image data transmitting apparatus, comprising the steps of:

receiving wirelessly data representing an identification code transmitted from an image data receiving apparatus;

reading main-image data, which corresponds to the identification code represented by received identification-code data, from a recording medium on which has been recorded the main-image data with which the identification code is associated; and

transmitting wirelessly the read main-image data to said image data receiving apparatus.

15. (PREVIOUSLY PRESENTED) The image sensing system according to claim 1, wherein the main-image data is recorded in an image file and the identification code is recorded in a header of the image file.

16. (PREVIOUSLY PRESENTED) The digital still camera according to claim 4, wherein the main-image data is recorded in an image file and the identification code is recorded in a header of the image file.

17. (PREVIOUSLY PRESENTED) The image data receiving apparatus according to claim 7, wherein the identification code associated with the

thumbnail-image data is recorded in a header of an image file and wherein a main-image data related to the thumbnail-image data is recorded in the image file.

18. (PREVIOUSLY PRESENTED) The image data communication system according to claim 8, wherein the main-image data is recorded in an image file and the identification code is recorded in a header of the image file.

19. (PREVIOUSLY PRESENTED) The image data receiving apparatus according to claim 9, wherein the identification code associated with the thumbnail-image data is recorded in a header of an image file and wherein a main-image data related to the thumbnail-image data is recorded in the image file.

20. (PREVIOUSLY PRESENTED) The image data transmitting apparatus according to claim 10, wherein the main-image data is recorded in an image file and the identification code is recorded in a header of the image file.

21. (PREVIOUSLY PRESENTED) The method of controlling the operation of the digital still camera according to claim 11, wherein the main-image data is recorded in an image file, the method further comprising:

recording the identification code in a header of the image file.

22. (PREVIOUSLY PRESENTED) The method of controlling the operation of the image data receiving apparatus according to claim 12, wherein the identification code associated with the thumbnail-image data is recorded in a header of an image file and wherein a main-image data related to the thumbnail-image data is recorded in the image file.

23. (PREVIOUSLY PRESENTED) The method of controlling the operation of the image data receiving apparatus according to claim 13, wherein the identification code associated with the thumbnail-image data is recorded in a header of an image file and wherein a main-image data related to the thumbnail-image data is recorded in the image file.

24. (PREVIOUSLY PRESENTED) The method of controlling the operation of the image data transmitting apparatus according to claim 14, wherein the identification code associated with the thumbnail-image data is

recorded in a header of an image file and wherein a main-image data related to the thumbnail-image data is recorded in the image file.

25. (NEW) The image sensing system according to claim 1,

wherein the digital still camera further comprises a wireless interface configured to wirelessly transmit a connect command to the image data receiving apparatus prior to the thumbnail-image data transmitting device of the digital still camera wirelessly transmitting the thumbnail-image data to the image data receiving apparatus, and

wherein the image data receiving apparatus further comprises a wireless interface configured to wirelessly receive the connect command from the digital still camera.

26. (NEW) The image sensing system according to claim 25, wherein the wireless interface of the image data receiving apparatus is configured to wirelessly transmit a connect acknowledgment to the digital still camera in response to the connect command from the digital still camera.

27. (NEW) The image sensing system according to claim 26,

wherein the wireless interface of the digital still camera is configured to wirelessly receive the connect acknowledgment from the image data receiving apparatus, and

wherein the thumbnail-image data transmitting device of the digital still camera is configured to wirelessly transmit the thumbnail-image data after the connect acknowledgment from the image data receiving apparatus is received.

28. (NEW) The image sensing system according to claim 25, wherein the image data receiving apparatus further comprises a controller configured to create one or more image folders associated with the digital still camera in a storage local to the image data receiving apparatus in response to the connect command from the digital still camera.

29. (NEW) The image sensing system according to claim 28, wherein the association of the digital still camera used by the controller of the image data receiving apparatus in creating the one or more image folders includes a model name of the digital still camera.

30. (NEW) The image sensing system according to claim 1, wherein the image data receiving apparatus further comprises:

an image selection device configured to allow a user to select one or more thumbnail images displayed on the display device; and

a reading device configured to read, from the recording medium recorded by the digital still camera, one or more main-image data corresponding to the one or more thumbnail images selected by the user.

31. (NEW) The image sensing system according to claim 30,

wherein the image selection device of the image data receiving apparatus is configured to store, in a buffer memory, one or more identification codes corresponding to the one or more thumbnail images selected by the user, and

wherein the reading device of the image data receiving apparatus is configured to read, from the buffer memory, the one or more identification codes, and to read, from the recording medium, the one or more main-image data corresponding to the one or more identification codes read from the buffer memory.

32. (NEW) The digital still camera according to claim 4, further comprising:

a wireless interface configured to wirelessly transmit a connect command to the image data receiving apparatus,

wherein the thumbnail-image data transmitting device is configured to transmit the thumbnail-image data to the image data receiving apparatus after the wireless interface transmits the connect command to the image data receiving apparatus.

33. (NEW) The digital still camera according to claim 32,

wherein the wireless interface is configured to wirelessly receive a connect acknowledgment from the image data receiving apparatus, and

wherein the thumbnail-image data transmitting device is configured to transmit the thumbnail-image data to the image data receiving apparatus after the wireless interface receives the connect acknowledgment from the image data receiving apparatus.

34. (NEW) The image data receiving apparatus according to claim 7, further comprising a wireless interface configured to wirelessly receive a connect command from the digital still camera.

35. (NEW) The image data receiving apparatus according to claim 34, wherein the wireless interface is configured to wirelessly transmit a connect acknowledgment to the digital still camera in response to the connect command from the digital still camera.

36. (NEW) The image data receiving apparatus according to claim 35, further comprising a controller configured to create one or more image folders associated with the digital still camera in a storage local to the image data receiving apparatus in response to the connect command from the digital still camera.

37. (NEW) The image data receiving apparatus according to claim 36, wherein the association of the digital still camera used by the controller in creating the one or more image folders includes a model name of the digital still camera.

38. (NEW) The image data receiving apparatus according to claim 7, further comprising:

an image selection device configured to allow a user to select one or more thumbnail images displayed on the display device; and

a reading device configured to read, from a recording medium recorded by the digital still camera, one or more main-image data corresponding to the one or more thumbnail images selected by the user.

39. (NEW) The image data receiving apparatus according to claim 38, wherein the image selection device is configured to store, in a buffer memory, one or more identification codes corresponding to the one or more thumbnail images selected by the user, and

wherein the reading device is configured to read, from the buffer memory, the one or more identification codes, and to read, from the recording medium, the one or more main-image data corresponding to the one or more identification codes read from the buffer memory.

40. (NEW) The image data communication system according to claim 8, wherein the image data transmitting apparatus further comprises a wireless interface configured to wirelessly transmit a connect command to the image data receiving apparatus, and

wherein the image data receiving apparatus further comprises a wireless interface configured to wirelessly receive the connect command from the image data transmitting apparatus.

41. (NEW) The image data communication system according to claim 40, wherein the identification-code data transmitting device of the image data receiving apparatus is configured to wirelessly transmit the identification code to the image data transmitting device after the connect command is received from the image data transmitting device.

42. (NEW) The image data communication system according to claim 8, wherein the image data receiving apparatus further comprises an image selection device configured to allow a user to select one or more thumbnail images displayed on the display device, and

wherein the identification-code data transmitting device of the image data receiving apparatus is configured to wirelessly transmit to the image data transmitting apparatus an image transmit command along with one or more identification codes, wherein the one or more identification codes transmitted to the image data transmitting apparatus correspond to the one or more thumbnail images selected by the user.

43. (NEW) The image data communication system according to claim 42,

wherein the image data transmitting apparatus further comprises a wireless interface configured to wirelessly receive the image transmit command from the image data receiving apparatus,

wherein the identification-code data receiving device of the image data transmitting apparatus is configured to wirelessly receive the one or more identification codes transmitted from the image data receiving apparatus in response to the image transmit command from the image data receiving apparatus,

wherein the reading device of the image data transmitting apparatus is configured to read, from the recording medium, one or more main-image data corresponding to the one or more identification codes received by the identification-code data receiving device of the image data transmitting apparatus, and

wherein the main-image data transmitting device of the image data transmitting apparatus is configured to wirelessly transmit to the image data receiving apparatus the one or more main-image data read by the reading device of the image data transmitting apparatus.

44. (NEW) The image data communication system according to claim 43, wherein the image data receiving device of the image data receiving apparatus is configured to wirelessly receive the one or more main-image data transmitted from the image data transmitting apparatus in response to the image transmit command.

45. (NEW) The image data receiving apparatus according to claim 9, further comprising:

a wireless interface configured to wirelessly receive a connect command from the image data transmitting apparatus,

wherein the identification-code data transmitting device is configured to transmit the identification code to the image data transmitting apparatus after the wireless interface receives the connect command.

46. (NEW) The image data receiving apparatus according to claim 9, further comprising:

an image selection device configured to allow a user to select one or more thumbnail images displayed on the display device,

wherein the identification-code data transmitting device is configured to transmit to the image data transmitting apparatus an image transmit command along with one or more identification codes, wherein the one or more

identification codes correspond to the one or more thumbnail images selected by the user.

47. (NEW) The image data receiving apparatus according to claim 46, wherein the image data receiving device is configured to wirelessly receive one or more main-image data from the image data transmitting apparatus in response to the image transmit command, wherein the one or more main-image data from the image data transmitting apparatus correspond to the one or more identification codes transmitted to the image data transmitting apparatus by the identification-code data transmitting device.

48. (NEW) The image data transmitting apparatus according to claim 10, further comprising a wireless interface configured to wirelessly transmit a connect command to the image data receiving apparatus.

49. (NEW) The image data transmitting apparatus according to claim 10, further comprising:

a wireless interface configured to wirelessly receive an image transmit command from the image data receiving apparatus,

wherein the identification-code data receiving device is configured to wirelessly receive one or more identification codes transmitted from the image

data receiving apparatus in response to the image transmit command from the image data receiving apparatus,

wherein the reading device is configured to read, from the recording medium, one or more main-image data corresponding to the one or more identification codes received by the identification-code data receiving device, and

wherein the main-image data transmitting device is configured to wirelessly transmit to the image data receiving apparatus the one or more main-image data read by the reading device.

50. (NEW) The method of controlling the operation of the digital still camera according to claim 11, further comprising wirelessly transmitting a connect command to the image data receiving apparatus prior to wirelessly transmitting the thumbnail-image data to the image data receiving apparatus.

51. (NEW) The method of controlling the operation of the digital still camera according to claim 50, further comprising wirelessly receiving a connect acknowledgment from the image data receiving apparatus after wirelessly transmitting the connect command to the image data receiving apparatus and prior to wirelessly transmitting the thumbnail-image data to the image data receiving apparatus.

52. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 12, further comprising wirelessly receiving a connect command from the digital still camera prior to wirelessly receiving the thumbnail-image data from the digital still camera.

53. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 52, further comprising wirelessly transmitting a connect acknowledgment to the digital still camera in response to the connect command from the digital still camera.

54. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 52, further comprising creating one or more image folders associated with the digital still camera in a storage local to the image data receiving apparatus in response to the connect command from the digital still camera.

55. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 54, wherein the association of the digital still camera used in creating the one or more image folders includes the model name of the digital still camera.

56. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 12, further comprising:

selecting one or more thumbnail images, based on a selection by a user, of thumbnail images displayed on a display; and

reading, from a recording medium recorded by the digital still camera, one or more main-image data corresponding to the one or more thumbnail images selected by the user.

57. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 56, further comprising:

storing, in a buffer memory, one or more identification codes corresponding to the one or more thumbnail images selected by the user,

wherein the reading step comprises reading, from the recording medium, the one or more main-image data corresponding to the one or more identification codes stored in the buffer memory.

58. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 13, further comprising wirelessly receiving a connect command from the image data transmitting apparatus

prior to transmitting the identification code to the image data transmitting apparatus.

59. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 13, further comprising:

selecting one or more thumbnail images, based on a selection by a user, of thumbnail images displayed on a display; and

wirelessly transmitting, to the image data transmitting apparatus, an image transmit command along with one or more identification codes corresponding to the one or more thumbnail images selected by the user.

60. (NEW) The method of controlling the operation of the image data receiving apparatus according to claim 59, further comprising:

wirelessly receiving one or more main-image data from the image data transmitting apparatus in response to the image transmit command,

wherein the one or more main-image data received from the image data transmitting apparatus correspond to the one or more identification codes transmitted to the image data transmitting apparatus.

61. (NEW) The method of controlling the operation of the image data transmitting apparatus according to claim 14, further comprising wirelessly transmitting a connect command to the image data receiving apparatus.

62. (NEW) The method of controlling the operation of the image data transmitting apparatus according to claim 14, further comprising:

wirelessly receiving an image transmit command along with one or more identification codes from the image data receiving apparatus;

reading, from the recording medium, one or more main-image data corresponding to the received one or more identification codes; and

wirelessly transmitting, to the image data receiving apparatus, the one or more main-image data read from the recording medium.